

I claim:

1. An optical compensatory sheet comprising a transparent support and an optically anisotropic layer, wherein
5 the optically anisotropic layer is formed from liquid crystal molecules and monomers having four or more double bonds, said monomers being polymerized to form a cross-linked polymer in the optically anisotropic layer.
- 10 2. The optical compensatory sheet as defined in claim 1, wherein the monomer is an ester of a polyol having four or more hydroxyl groups with an acrylic acid or a methacrylic acid.
- 15 3. The optical compensatory sheet as defined in claim 1, wherein the monomers have four to twenty double bonds.
- 20 4. The optical compensatory sheet as defined in claim 1, wherein the monomers are used in an amount of 0.1 to 50 wt.% based on an amount of the liquid crystal molecules.
- 25 5. The optical compensatory sheet as defined in claim 1, wherein the liquid crystal molecules are discotic liquid crystal molecules.
- 30 6. The optical compensatory sheet as defined in claim 5, wherein each of the discotic liquid crystal molecules has a double bond, said discotic liquid crystal molecules and the monomers being co-polymerized in the optically anisotropic layer.

202501040044000

7. The optical compensatory sheet as defined in claim 1, wherein an orientation layer is provided between the transparent support and the optically anisotropic layer.

5 8. The optical compensatory sheet as defined in claim 7, wherein the orientation layer comprises a polymer having double bonds at side chains, said polymer in the orientation layer and the monomers in the optically anisotropic layer being co-polymerized along an interface between
10 the orientation layer and the optically anisotropic layer.

9. The optical compensatory sheet as defined in claim 1, wherein the transparent support has a retardation values in plane in the range of 0 to 50 nm and a retardation value along a thickness direction in the range of 70
15 to 400 nm.

10. The optical compensatory sheet as defined in claim 1, wherein the transparent support is a cellulose acetate film comprising cellulose acetate having an acetic acid content in the range of 59.0 to 61.5%.
20

11. The optical compensatory sheet as defined in claim 10, wherein the cellulose acetate film contains an aromatic compound having two or more aromatic rings in an
25 amount of 0.01 to 20 weight parts based on 100 weight parts of cellulose acetate.

12. The optical compensatory sheet as defined in claim 10, wherein the cellulose acetate film is formed by casting two or more cellulose acetate solutions simultaneously.
30

202510-012302

13. The optical compensatory sheet as defined in claim 10, wherein the cellulose acetate film is formed from a solution of cellulose acetate in a solvent selected from a group consisting of an ether having 2 to 12 carbon atoms, a ketone having 3 to 12 carbon atoms or an ester having 2 to 12 carbon atoms.

14. A liquid crystal display comprising two polarizing plates, a liquid crystal cell provided between the plates, and at least one optical compensatory sheet placed between the cell and at least one of the plates, said optical compensatory sheet comprising a transparent support and an optically anisotropic layer, wherein the optically anisotropic layer formed from liquid crystal molecules and monomers having four or more double bonds, said monomers being polymerized to form a polymer in the optically anisotropic layer.

15. The liquid crystal display as defined in claim 13, wherein the transparent support of the optical compensatory sheet functions as a transparent protective film of the polarizing plate.

10052440-012302